

## WHAT ARE PFAS?

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a group of human-made chemicals that have been used in industry and consumer products worldwide since the 1940s because they resist heat, oil, stains, grease, and water. There are thousands of different PFAS, some of which have been more widely used and studied than others. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are two of the most studied and are the subject of proposed regulations.

PFAS are used to make consumer goods water-repellent, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam.

## HOW AM I EXPOSED TO PFAS?

People are exposed to PFAS through eating food, inhaling dust, and drinking water that contain PFAS. These chemicals can be present in our environment in the soil, air, and water, as well as in materials found in our homes or workplaces.

PFAS is common in household products such as:

- Nonstick cookware
- Stain resistant and water-repellant carpet, furniture, and clothing
- Nonstick food packaging, such as French fry cartons, popcorn bags, and pizza boxes
- Personal care products, such as shampoos, dental floss, and makeup
- Paints, varnishes, and sealants

U.S. EPA estimates that food, dust, air, and consumer products account for 80% of a person's exposure to PFAS, while drinking water accounts for only 20% of a person's total exposure (U.S. EPA Draft National Primary Drinking Water Regulation 2023).



## **HOW DO PFAS GET INTO DRINKING WATER?**

PFAS chemicals are incorporated into thousands of industrial and consumer products and released into the environment during the ordinary use and disposal of those products. Additionally, PFAS can enter soil, groundwater, and surface water near places where these chemicals were manufactured or released into the environment for industrial purposes.

Drinking water is received from surface water sources such as rivers, lakes, and streams as well as groundwater sources. The water is then treated to remove many contaminants. However, PFAS are not easily broken down or removed, which is why they are often referred to as “forever chemicals.” If the water is not treated by advanced methods to remove PFAS, the chemicals may pass through into drinking water.

## **HOW ARE PFAS TREATED IN DRINKING WATER?**

Removing PFAS from water is challenging. PFAS may be removed by utilizing activated carbon, ion exchange or high-pressure membranes (nanofiltration or reverse osmosis). Removing even low levels of PFAS can be difficult and very costly.

Because of the cost and complexity to remove PFAS from our drinking water sources, it is essential to ensure our drinking water supplies are not contaminated by the manufacturing, use, or disposal of PFAS.

## **ARE PFAS HARMFUL TO HUMAN HEALTH?**

The Ohio Department of Health explains that current scientific research suggests that exposure to PFAS may cause health effects. But that exposure to PFAS does not always mean a person will have health effects. The risk of health effects from PFAS is dependent on how long a person is exposed (duration), how often they were exposed (frequency), and how much a person was exposed to (dose). Research is still being conducted to determine how different levels of exposure to different PFAS can affect our health. For more information about health effects, visit the Ohio Department of Health’s [website](#) and access the PFAS chemical fact sheets.

Regulatory values set by U.S. EPA are typically based on a lifetime’s worth of exposure, and are conservative to protect against health effects for the most sensitive populations.

## **HOW CAN I LIMIT MY EXPOSURE TO PFAS?**

It is practically impossible to completely avoid PFAS because they are so commonly used and present in many consumer products. Consumers can limit their exposure by researching the products they use to determine whether they contain PFAS, and limit the use of those products that were made with PFAS. The general public can also help by contacting their legislators to encourage them to ban these use of these chemicals, and contacting product manufacturers to ask them to discontinue their use of PFAS.

## **WHAT ARE THE PROPOSED FEDERAL STANDARDS FOR PFAS?**

Currently there are no national drinking water standards for PFAS compounds. However, on March 14, 2023, U.S. EPA issued draft national primary drinking water regulations for several PFAS compounds. U.S. EPA proposed a maximum contamination level of 4ppt (ng/L) for two PFAS compounds, PFOA and PFOS, and also proposed to regulate four other PFAS compounds, PFBS, PFHxS, PFNA, and HFPO-DA (GenX), using a Hazard Index of one to address these compounds as a mixture. These standards are not yet finalized. To see the full scope of U.S. EPA's plan to address PFAS in the environment, look at the [PFAS Strategic Roadmap](#).

## **WHAT IS THE CITY OF COLUMBUS DOING TO ADDRESS PFAS?**

While the Columbus Department of Public Utilities (CDPU) provides clean drinking water, we know that our work is never done. CDPU is committed to ensuring that our drinking water is safe and meets all state and federal regulations. To help achieve this, CDPU is proactive in water quality investigation, performing tens of thousands of tests each year to ensure drinking water quality. Although it is not yet required by Ohio EPA or U.S. EPA, CDPU has been testing for PFAS compounds in source water and water plants since 2019 to be proactive and protective of public health. Currently, CDPU samples quarterly for PFAS in anticipation of the finalization of the national primary drinking water regulations.

There are many chemicals in the PFAS family. Some PFAS chemicals have been detected at very low levels, near the detection limits of the test. Currently, results indicate that CDPU will meet the maximum contaminant levels and hazard index amounts proposed by U.S. EPA in the national primary drinking water regulations. We continue to monitor our results to determine if treatment will need to be implemented at any of our plants to ensure the safety of our drinking water. Columbus is confident that we will be in compliance with the regulatory requirements when they are finalized.

## **WHERE CAN I LEARN MORE ABOUT PFAS?**

Ohio EPA

[PFAS in Drinking Water](#)

U.S. EPA

[Per- and Polyfluoroalkyl Substances \(PFAS\)](#)

Ohio Department of Health

[How to Reduce Your Exposure to PFAS](#)

Columbus Department of Public Utilities

[Comment to U.S. EPA regarding proposed PFAS National Drinking Water Regulation](#)